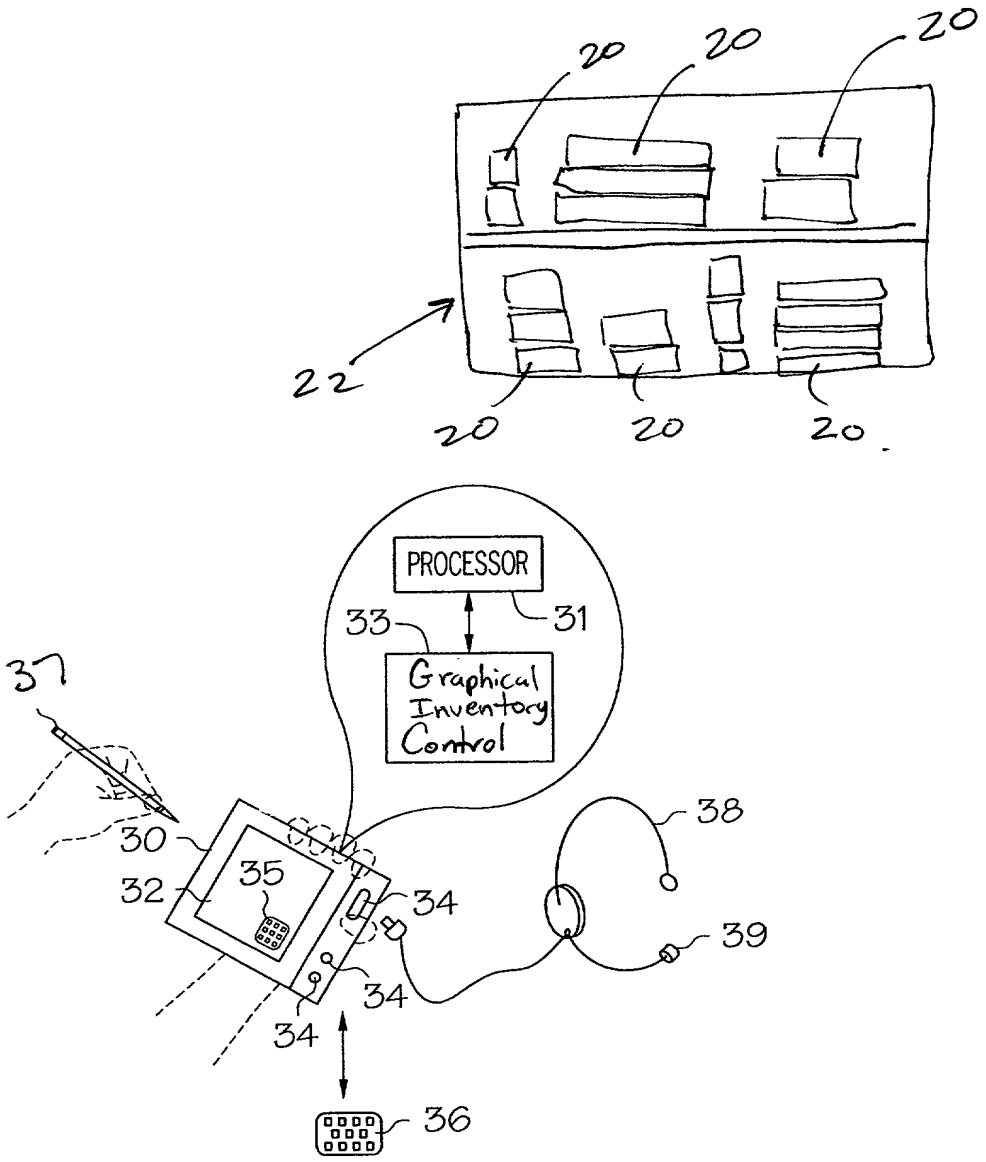

20
20
20
22
20
20
20
PROCESSOR
33
31
Graphical Inventory Control
37
30
35
32
34
38
39
34
34
36

FIG. 1

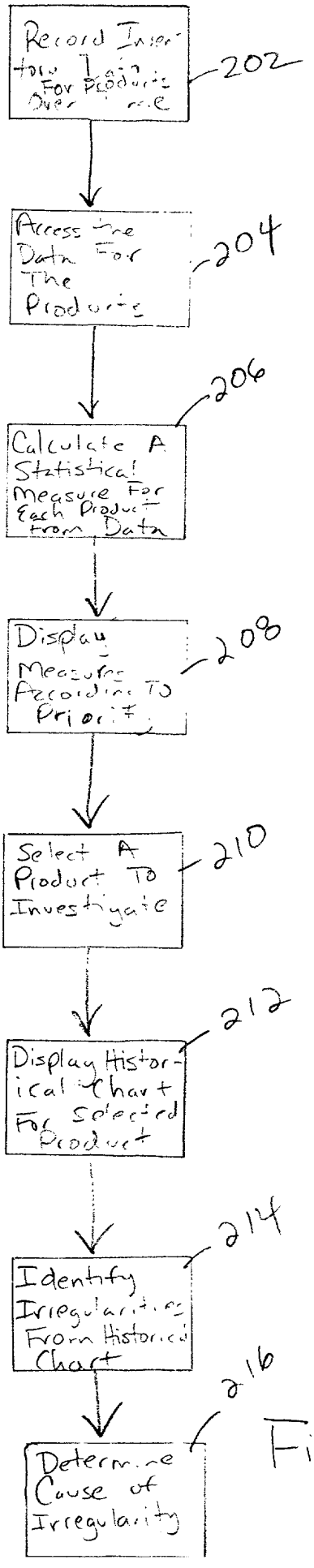

Record Inventory Data For Products Over Time
202
Access The Data For The Products
204
Calculate A Statistical Measure For Each Product From Data
206
Display Measures According To Priority
208
Select A Product To Investigate
210
Display Historical Chart For Selected Product
212
Identify Irregularities From Historical Chart
214
Determine Cause of Irregularity
216

Fig. 2

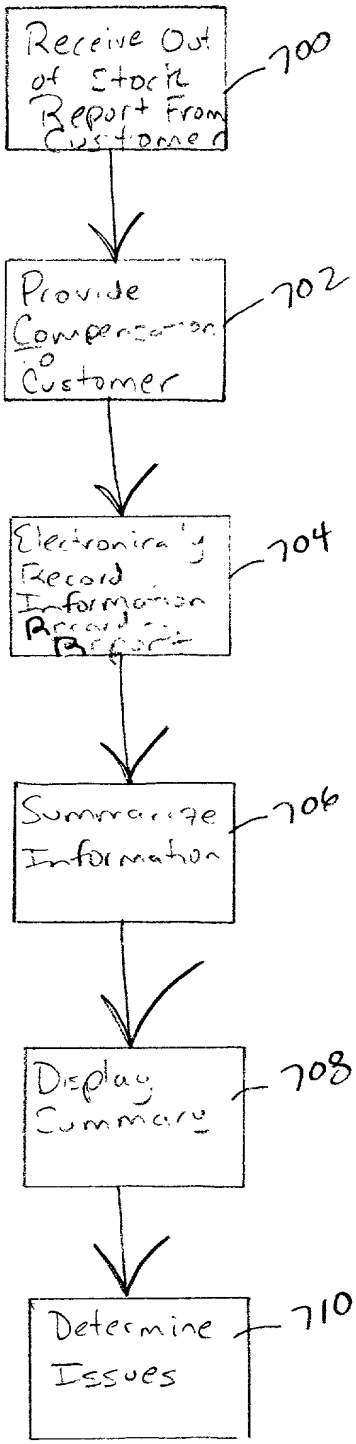

Receive Out of Stock Report From Customer
700
Provide Compensation to Customer
702
Electronically Record Information Regarding Report
704
Summarize Information
706
Display Summary
708
Determine Issues
710

Fig. 7

300

| | Product A | Product B | Product C | Product D | Product E | Product F | Product G |
|---|---|---|---|---|---|---|---|
| 06-FEB-2000 | 2 | 1 | 1 | 3 | 1 | 2 | 4 |
| 07-FEB-2000 | 1 | | | | 2 | 1 | 3 |
| 08-FEB-2000 | 3 | 1 | | | 5 | 4 | 5 |
| 09-FEB-2000 | 3 | 5 | | 1 | 2 | 3 | 1 |
| 10-FEB-2000 | 1 | | 2 | | 2 | 6 | 1 |
| 11-FEB-2000 | | 2 | 1 | 1 | 2 | 8 | |
| 12-FEB-2000 | | 1 | | 2 | 1 | 12 | 6 |
| 13-FEB-2000 | | | 1 | | 2 | 6 | 9 |
| 14-FEB-2000 | | | 1 | | 1 | | 1 |
| 15-FEB-2000 | 1 | 1 | 1 | | 3 | 6 | 1 |
| 16-FEB-2000 | | | 1 | 1 | 1 | 1 | 3 |
| 17-FEB-2000 | 2 | 6 | | 1 | 2 | 2 | 2 |
| 18-FEB-2000 | | | | | 2 | 2 | 2 |
| 19-FEB-2000 | 1 | 4 | | | | 8 | 6 |
| 20-FEB-2000 | 5 | 7 | 3 | 1 | 3 | 6 | 3 |

302

306

306

306

304

Fig. 3

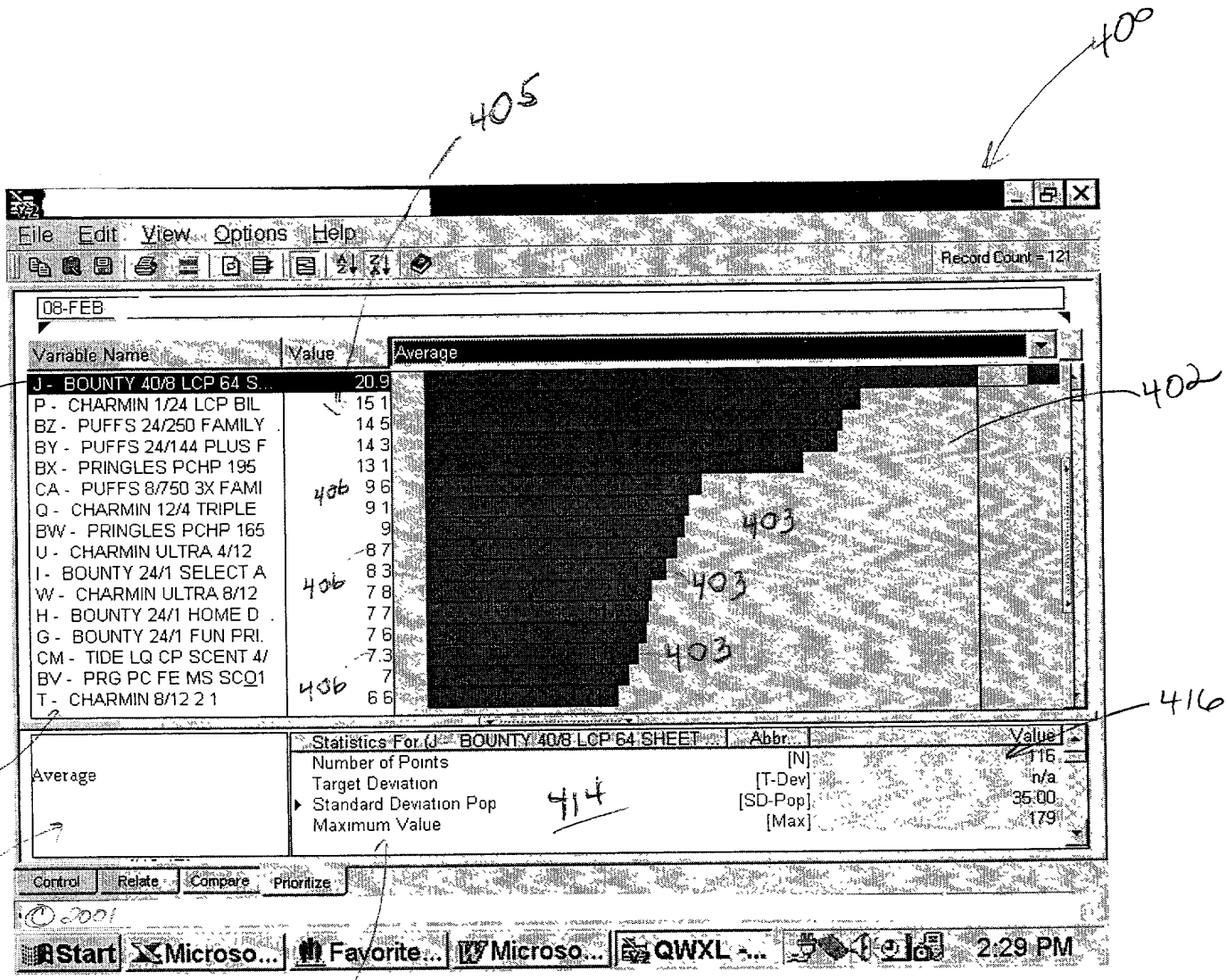

400
405
File Edit View Options Help
Record Count = 121
08-FEB
Variable Name
Value
Average
J - BOUNTY 40/8 LCP 64 S... 20.9
P - CHARMIN 1/24 LCP BIL 15 1
BZ - PUFFS 24/250 FAMILY 14 5
BY - PUFFS 24/144 PLUS F 14 3
BX - PRINGLES PCHP 195 13 1
CA - PUFFS 8/750 3X FAMI 9 6
Q - CHARMIN 12/4 TRIPLE 9 1
BW - PRINGLES PCHP 165 9
U - CHARMIN ULTRA 4/12 8 7
I - BOUNTY 24/1 SELECT A 8 3
W - CHARMIN ULTRA 8/12 7 8
H - BOUNTY 24/1 HOME D 7 7
G - BOUNTY 24/1 FUN PRI. 7 6
CM - TIDE LQ CP SCENT 4/ 7.3
BV - PRG PC FE MS SCQ1 7
T - CHARMIN 8/12 2 1 6 6
412
406
406
406
402
403
403
403
416
404
Average
Statistics For (J - BOUNTY 40/8 LCP 64 SHEET
Abbr.
Value
Number of Points [N] 116
Target Deviation [T-Dev] n/a
Standard Deviation Pop [SD-Pop] 35.00
Maximum Value [Max] 179
414
403
Control
Relate
Compare
Prioritize
©2001
Start
Microso...
Favorite...
Microso...
QWXL -...
2:29 PM
410

Fig. 4

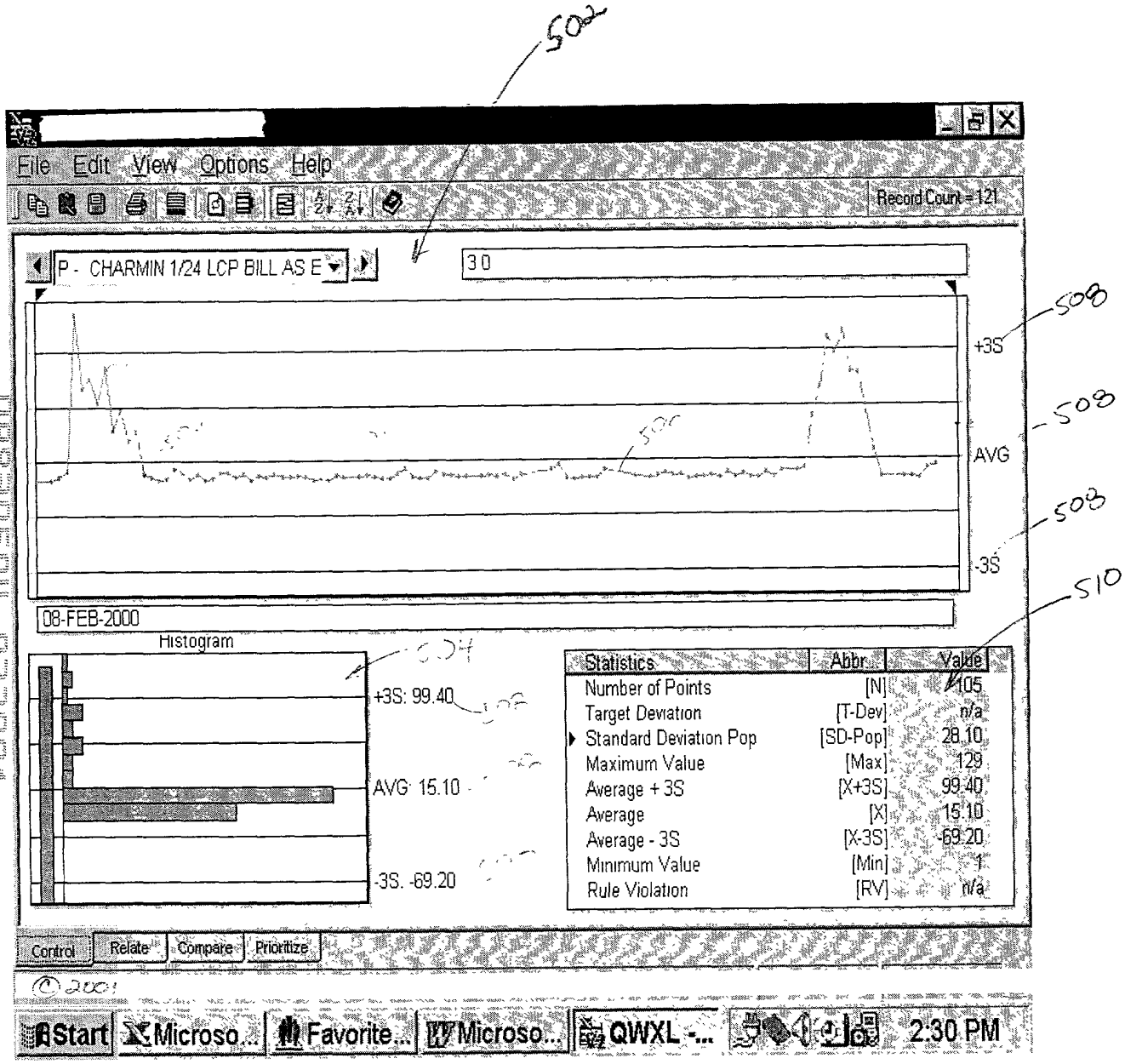

502
File Edit View Options Help
Record Count = 121
P - CHARMIN 1/24 LCP BILL AS E
30
+3S
AVG
-3S
508
508
508
08-FEB-2000
Histogram
+3S: 99.40
AVG: 15.10
-3S: -69.20
510
Statistics | Abbr | Value
Number of Points | [N] | 105
Target Deviation | [T-Dev] | n/a
Standard Deviation Pop | [SD-Pop] | 28.10
Maximum Value | [Max] | 129
Average + 3S | [X+3S] | 99.40
Average | [X] | 15.10
Average - 3S | [X-3S] | -69.20
Minimum Value | [Min] | 1
Rule Violation | [RV] | n/a
Control
Relate
Compare
Prioritize
©2001
Start
Microso...
Favorite...
Microso...
QWXL -...
2:30 PM
500

Fig. 5

Doc No. 0550504 Doc No.

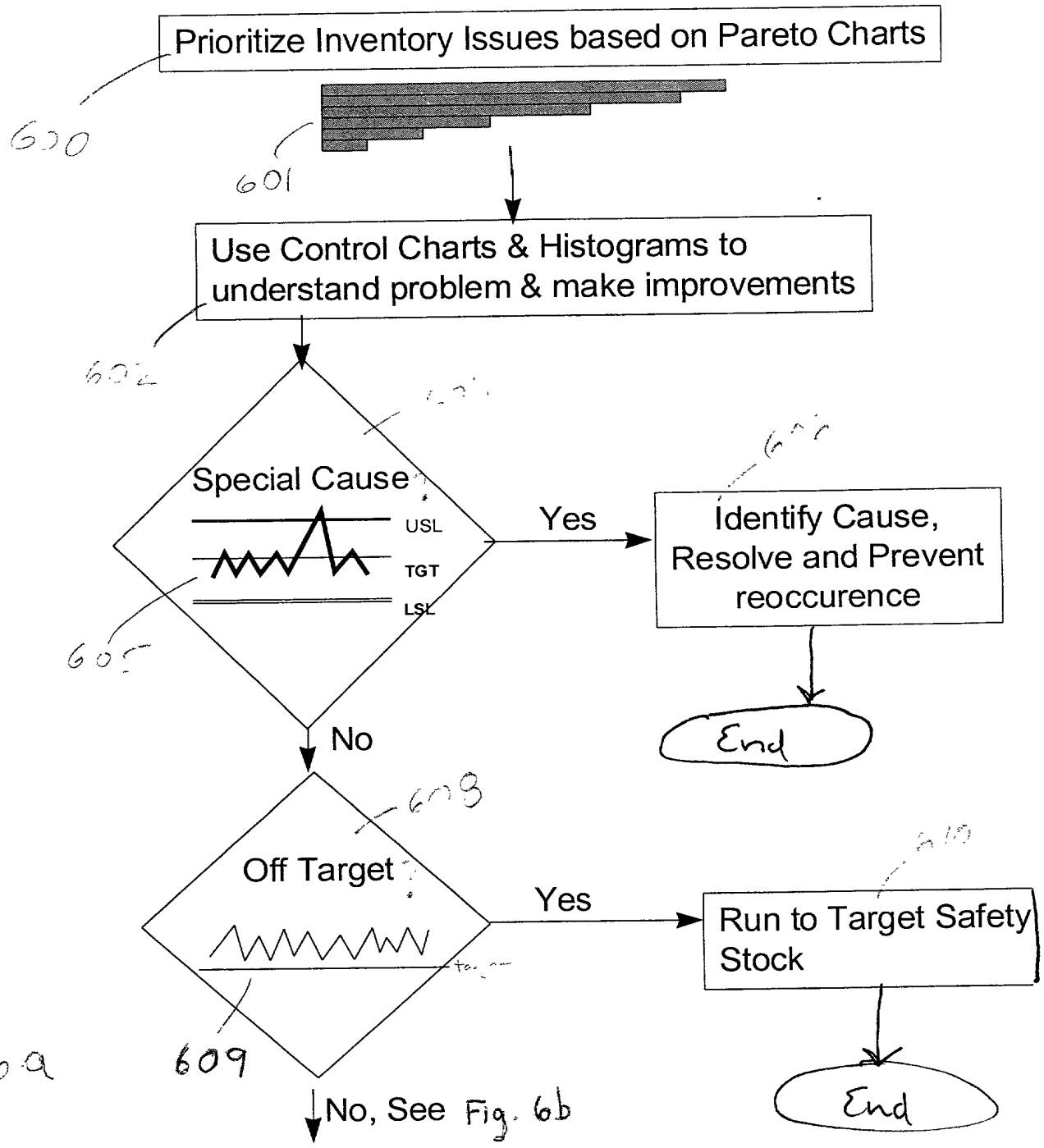



Fig. 6a

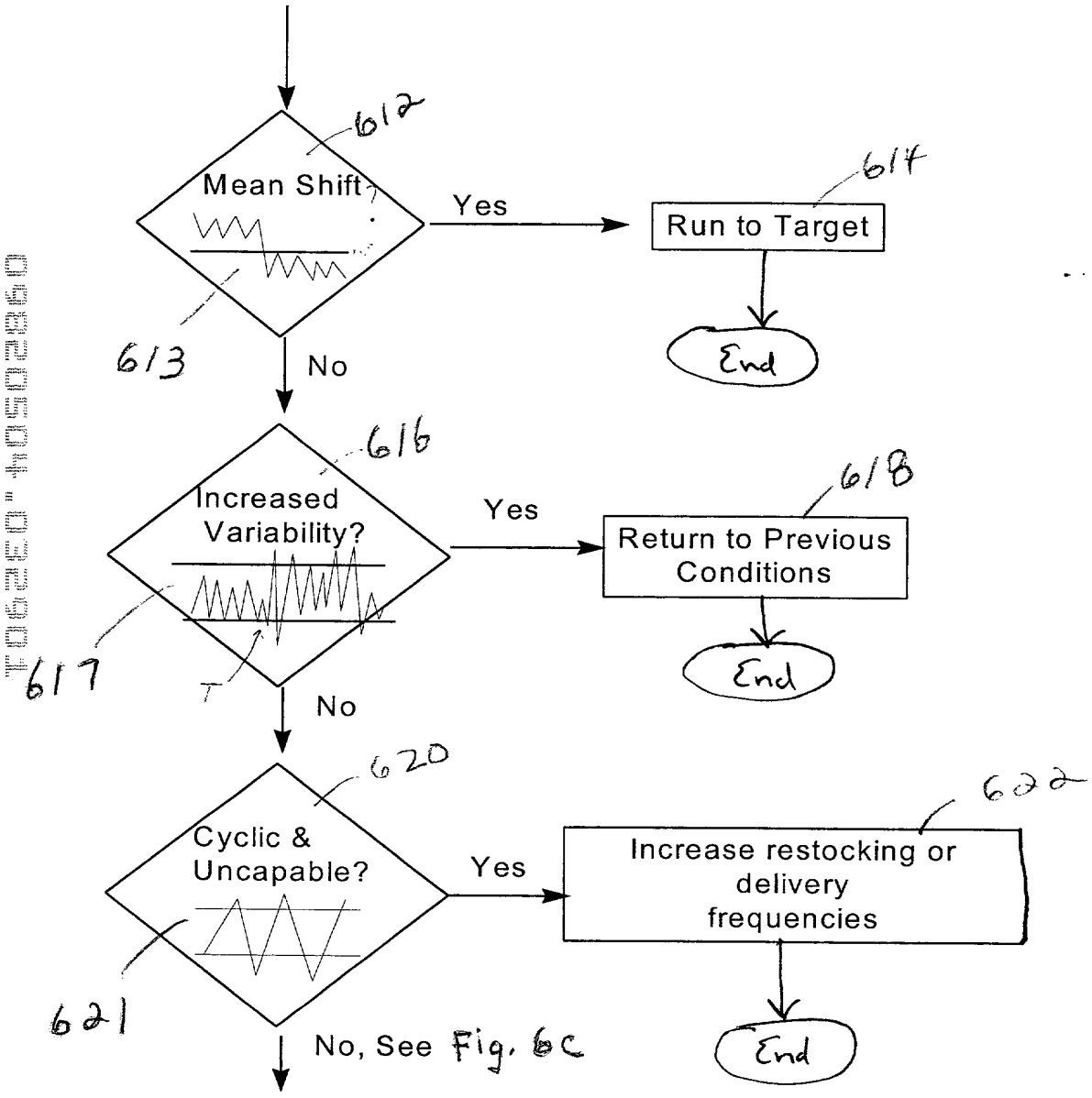

612
Mean Shift
Yes
614
Run to Target
End
613
No
616
Increased Variability?
Yes
618
Return to Previous Conditions
End
617
T
No
620
Cyclic & Uncapable?
Yes
622
Increase restocking or delivery frequencies
End
621
No, See Fig. 6c

Fig. 6b

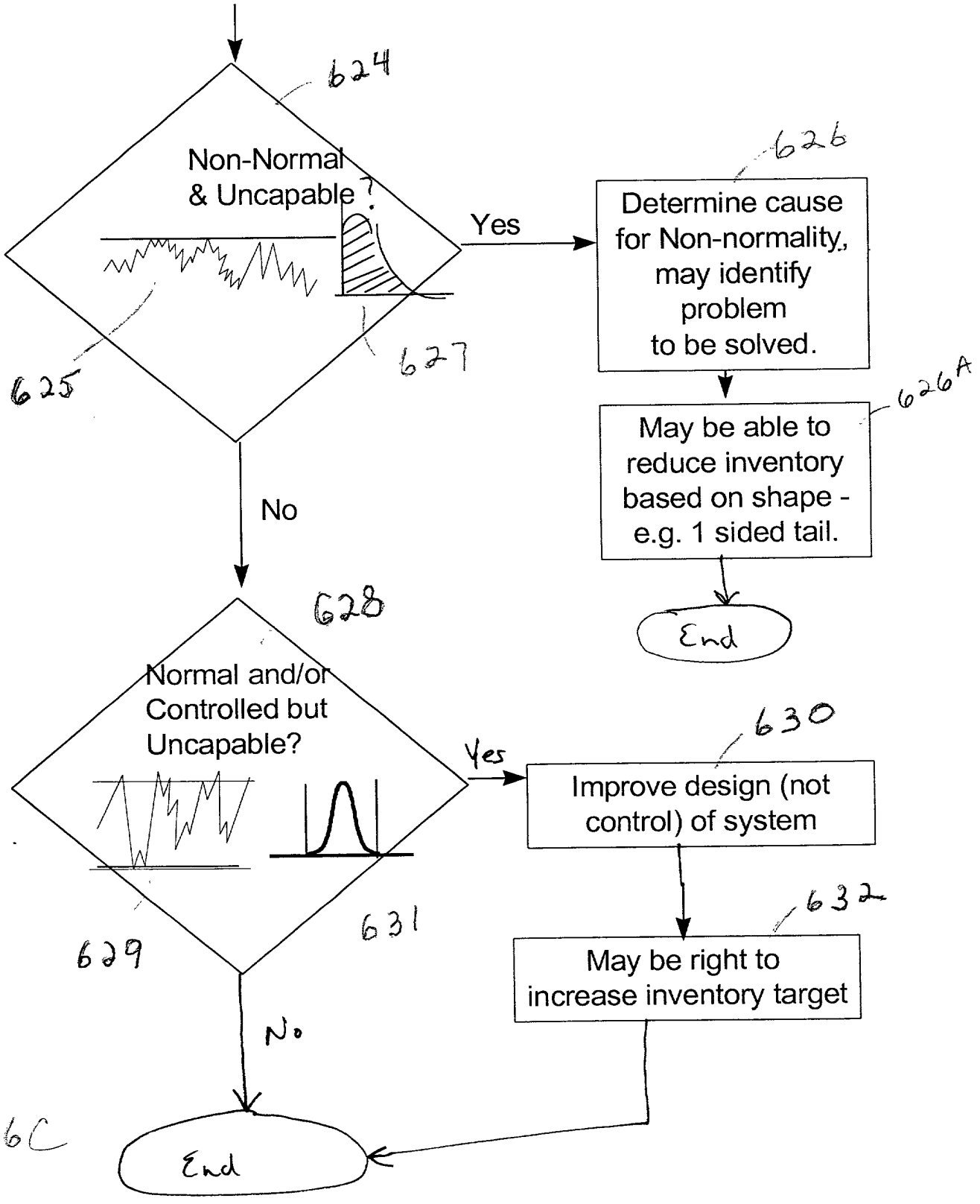
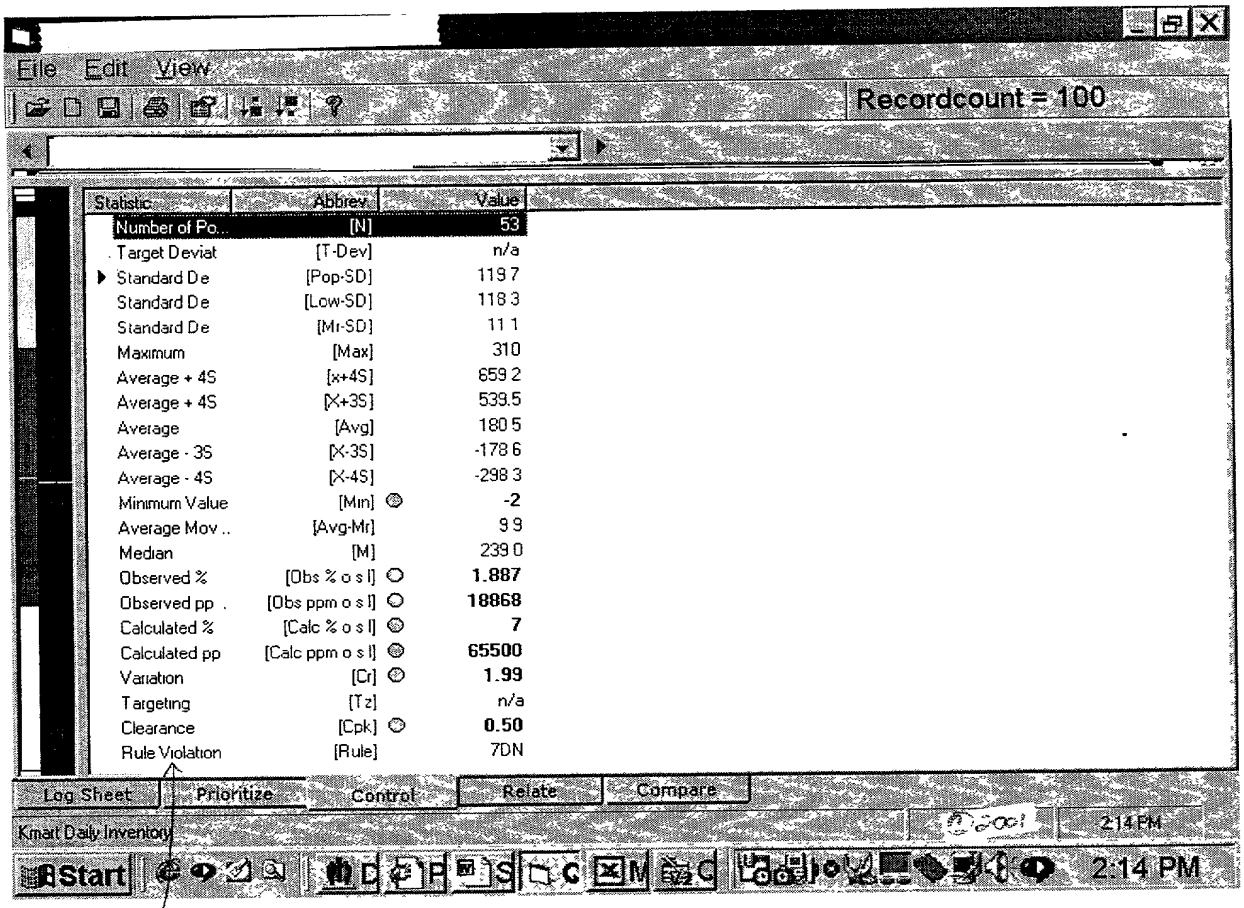

624
Non-Normal & Uncapable ?
Yes
626
Determine cause for Non-normality, may identify problem to be solved.
626A
May be able to reduce inventory based on shape - e.g. 1 sided tail.
End
625
627
No
628
Normal and/or Controlled but Uncapable?
Yes
630
Improve design (not control) of system
632
May be right to increase inventory target
629
631
No
End

Fig. 6C

February Out of Stock Report

| Product | Date | Day | Time | Cause | Sale |
|---|---|---|---|---|---|
| A | 2/1 | Weds | 1:29 | In Back Room | No |
| | 2/20 | Fri | 7:50 | No Stock In store | No |
| | 3/15 | Tues | 10 32 | Truck Not Unloaded | Yes |
| B | 2/11 | Mon | 12:01 | In Back Room | No |
| | 2/28 | Sat | 2:02 | In Extra Storage | No |

Fig. 8


File Edit View
Recordcount = 100
Statistic
Abbrev
Value
Number of Po... [N] 53
Target Deviat [T-Dev] n/a
Standard De [Pop-SD] 119 7
Standard De [Low-SD] 118 3
Standard De [Mr-SD] 11 1
Maximum [Max] 310
Average + 4S [x+4S] 659 2
Average + 4S [X+3S] 539.5
Average [Avg] 180 5
Average - 3S [X-3S] -178 6
Average - 4S [X-4S] -298 3
Minimum Value [Min] -2
Average Mov .. [Avg-Mr] 9 9
Median [M] 239 0
Observed % [Obs % o s l] 1.887
Observed pp . [Obs ppm o s l] 18868
Calculated % [Calc % o s l] 7
Calculated pp [Calc ppm o s l] 65500
Variation [Cr] 1.99
Targeting [Tz] n/a
Clearance [Cpk] 0.50
Rule Violation [Rule] 7DN
Log Sheet
Prioritize
Control
Relate
Compare
Kmart Daily Inventory
2:14 PM
Start
2:14 PM

900

Fig. 9

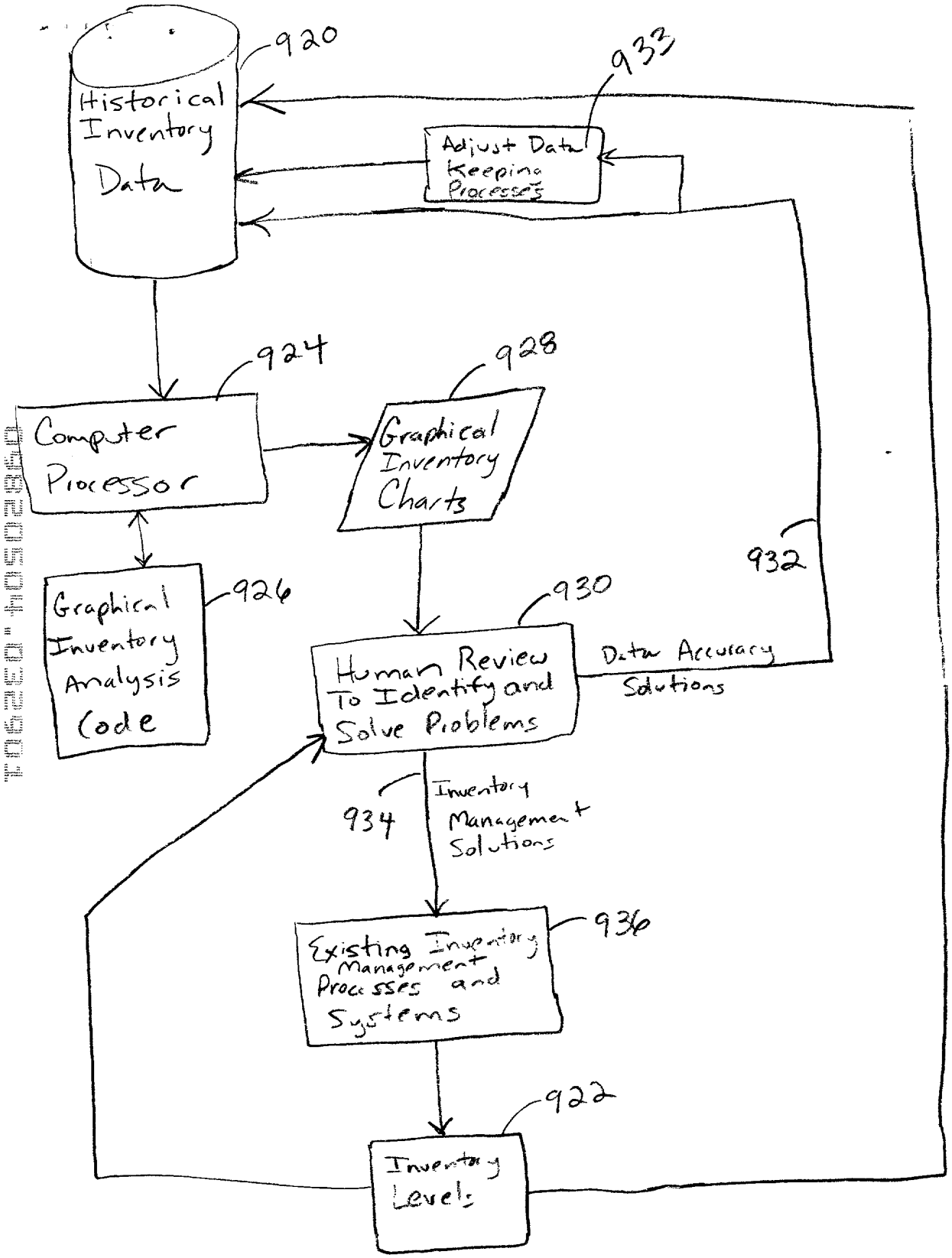

Historical Inventory Data
920
Adjust Data Keeping Processes
933
Computer Processor
924
Graphical Inventory Charts
928
Graphical Inventory Analysis Code
926
932
Human Review To Identify and Solve Problems
930
Data Accuracy Solutions
934
Inventory Management Solutions
Existing Inventory Management Processes and Systems
936
Inventory Levels
922

Fig. 10